

REMARKS

Claims 85 and 86 are pending, with claims 53-84 being canceled herein, and new claims 85 and 86 being added.

Claims 85 and 86 over Burns

Claims 53-84 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by U.S. Patent No. 6,379,929 to Burns et al. ("Burns"). Claims 53-84 are canceled herein, making the rejections of claims 53-84 now moot. It is respectfully requested that the rejection of claims 53-84 be withdrawn.

Newly added claims 85 and 86 are patentable over the cited prior art. Support for the newly added claims 85 and 86 can be found in Fig. 8 and at page 14, line 29 to page 15, line 20.

In particular, claims 85 and 86 recite, *inter alia*, at least one elastically deformable wall which can act to alter a volume of a chamber reversibly.

Burns appears to disclose an isothermal amplification of nucleic acids, such as DNA and RNA, in a microfabricated structure. By necessity such amplification reactions occur at temperatures that fluctuate at best only to a very tiny degree. The microfabricated structure for maintaining such a constant temperature environment comprises silicon, glass or quartz components including channels and reaction chambers. A thermally controlled reaction chamber is formed from a silicon and glass substrates (Burns, col. 20, lines 34-35).

Burns discloses a microfabricated structure for maintaining a constant temperature of channels and reaction chambers. The microfabricated structure includes a thermally controlled reaction chamber comprised of silicon and glass. Burns' thermally controlled reaction chamber does **NOT** change in volume, much less from at least one elastically deformable wall which can act to alter a volume of a chamber reversibly, as recited by claims 85 and 86.

A benefit of an elastically deformable wall which can act to alter a volume of a chamber reversibly is, e.g., precise control of flow along connected pathways. Altering the volume of the chamber reduces the apparent pressure

within the chamber, and causes a rate of flow along a pathway connected to the chamber to vary. In many applications, the rate of flow along pathways needs to be precisely controlled. Such an advantage is not disclosed or suggested by the cited prior art.

Accordingly, for at least all the above reasons, claims 85 and 86 are patentable over the prior art of record.

Conclusion

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Will H Bollman', written over a horizontal line.

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